

Spatial structure of gravitational field

Introduction to the 'space field' of dynamic multidimensional symmetric complex geometry (1)

Hu Jun

Abstract: What is space, there are various sayings, what is "field"? The argument is different. What is the structure of the field and how the field acts on objects (substance). These are the most basic problems in physics and chemistry, as well as basic problems in other branches of physics, which we need to break through Problems, but the explanations of these problems in traditional theories are mostly external appearances. Use the six-level geometric space to analyze the field, The field is a special state of the space. The field is divided into 3^n times 'field' and 2^n times 'field'. The field with the 3^n field as the basic plane constitutes a gravitational field, and the 2^n times field perpendicular to the 3^n plane constitutes a magnetic like field. Different levels of Magnetic field-like and the vertical 3^n field as the basic plane work together to form different levels of orbits around the object. There are layers in the field, the internal objects in the range of layers feel the gravitational field, and the repulsion field is produced between the two identical systems outside the layer when the hierarchical fusion occurs. The gravitational field and the 'repulsive field' are products of different levels. Space is the superposition and recombination of all fields.

Keywords: space, field ,space field, six-level space, Level.

1. Introduction

1.0. Traditional and simple views on the relationship between objects and space:

Space seems to have no effect on our objects. Is the external environment for the movement and survival of objects.

1.1. The traditional naive idea of objects:

Space in people's three-dimensional concept, and objects (matter) at the same time. We use our eyes to see a thing 'light' reflected into our eyes, telling us: where there is a thing, it works on our objects, this nature that works on our objects, we call 'thing', and we find that this thing has different categories, which we can measure by a standard, the size of which we call objects. So there's something that interacts with our bodies, and it's a category that we call objects and categories, and then we find objects with small categories that are negligible and we can't see with our eyes, but what he has to do with our entities, that is, properties of objects, which we call matter, which do n' t need to take into account their size, and then we find that macroscopic objects are made up of these small substances, and that the volume of objects is generally related to the amount of matter, but there is no particular relation to the number of substances that describe the properties of objects, We introduced the concept of quality. The deep meaning of the concept of objects is that what can be seen with the eyes has a powerful effect on our objects, and our objects can not pass through it; we refer to our objects or to an object other than one', and we will find that objects can be divided into many different kinds, and our human' objects' itself is an object

1.2. Traditional and simple perceptions of space:

At the same time the object has a range, is independent, we can take a stone, there is nothing around the stone, this is nothing is the free passage of light, this light can be arbitrary through the category, we call space.

So we simply think: space is the container of objects, space has no effect on objects, is a kind of existence relative to objects.

We later discovered that a magnet, which has no contact with two objects, has a powerful effect on other iron or magnetic objects, which breaks the intuitive perception that the interaction of objects requires contact. Later, we discovered the gravity of the earth to our bodies, which we can feel at all times, but do not know how the objects works on our bodies. We call this' existence', which attracts us without knowing what it is.

1.3. Special matter and special space

Because of the behavior of magnets and gravitational fields, let us think that they do not work directly, but

there must be something we can't see and do n't understand that works directly between the two. This invisible 'existence', whose size and scope are uncertain, and whose interior is as if it were 'empty ,' which we call magnetic and gravitational fields in order to describe its distinctive 'empty as wild', is thought to be:

- ① It is objects, not "empty as wild" nothing, belong to the objects category.
- ② It is a category of space, a distinctive 'empty as wild 'space, belong to the category of space.
- ③ It is a special thing, that is, not an object, nor an empty, so it is defined as a field, which is called a field objects or objects field, or a field space or space field.

It's easy to see that people with different perceptions have different positions, that is, different frames of reference and different measures. Later we found that whether we put it in the objects category or the spatial category, it has no effect on our experiment, so the 'field' has the uncertainty attribute and the left and right pendulum attribute and the chaos attribute.

2.0. New perceptions of space and field -'space field'

field is a part of space, some people will oppose this statement, think that 'field' is a special form of matter; field is a part of matter, also some people oppose this statement, think 'field' is a special form of space. Here we classify 'field' as part of space, so 'field' is a special space, and the concept of 'space field' arises.

2.1.0 the Space and Field of Six-level Space Theory ^[1, 2, 4]

The theory of six-level space geometry holds that space is not an empty thing, it has complex layers and structures. Figure 1, it is 3rd to double the 'space field' model.

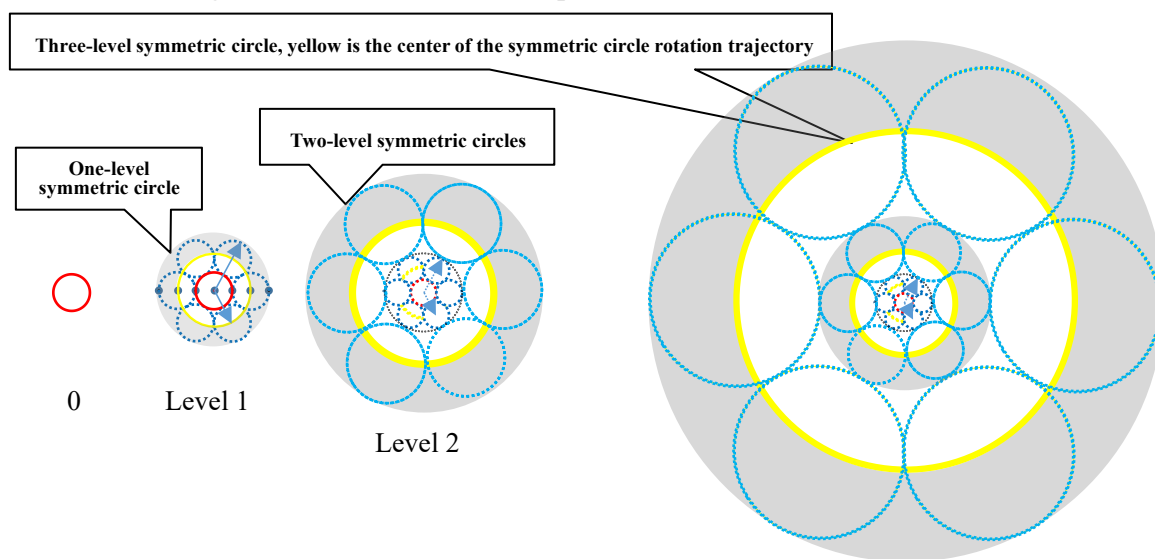


Figure 1| the red is the 'starting circle'. the attributes of the 'starting circle' can be divided into two main categories: virtual attribute, real attribute, while the real attribute is divided into positive attribute and negative attribute inside, assuming that the object (substance) is real attribute, recorded as ± 1 ; space is imaginary attribute, recorded as $\pm i$ (i is imaginary unit).

The cyan circle represents the "symmetrical circle". Six symmetrical circles with the same radius as the "starting circle" surround the "starting circle". They are tangent to the "starting circle" and other adjacent symmetrical circles, forming a hierarchical symmetry system. If the "starting circle" in the one-level symmetric system is a material property, then the six symmetrical circles are imaginary number attributes. Because the imaginary number reality is not visible, so The observer on the "starting circle" (which is part of the "starting circle") can not observe the existence of the symmetrical circle, and the light on the "starting circle" can not perceive the existence of the symmetrical circle, and pass through the symmetrical circle without blocking. At this

time, the observer on the "starting circle" concludes that the diameter of the circumference of the "starting circle" is equal to that of the "starting circle". There is an object (matter), and it is an illusory space.

however

The higher-level observers or "total observers" located outside the symmetric circle will have different perceptions of observation from the observers on the "starting circle". They are philosophically speaking "objective", and "objective" will think Symmetry circles do exist. They are the six symmetrical circles radiating outward at the same time from the 'starting circle'. They occupy the position outside the circumference of the 'starting circle'. The symmetry circle and the 'starting circle' at this position are mutually exclusive. Affected.

When the observer inside the "circle of symmetry" perceives some or all of the matter on its "starting circle", he cannot perceive the existence of the virtual symmetry circle, so he thinks that this space area is the same as other Space is different and special, so this observer defines this special space as a 'field'. When we humans observe the world around us, we always have this kind of observer situation on the 'starting circle', so There will always be similar conclusions.

We extend the above conclusion, that is, all observers have a space and a 'spatial field' relative to their own frame of reference. This kind of observation, as the level deepens or rises, the conclusion will have different levels.

Fig .2. Observational cognition of the six-level space' total observer' or ' out-of-system observer' of the observed system.

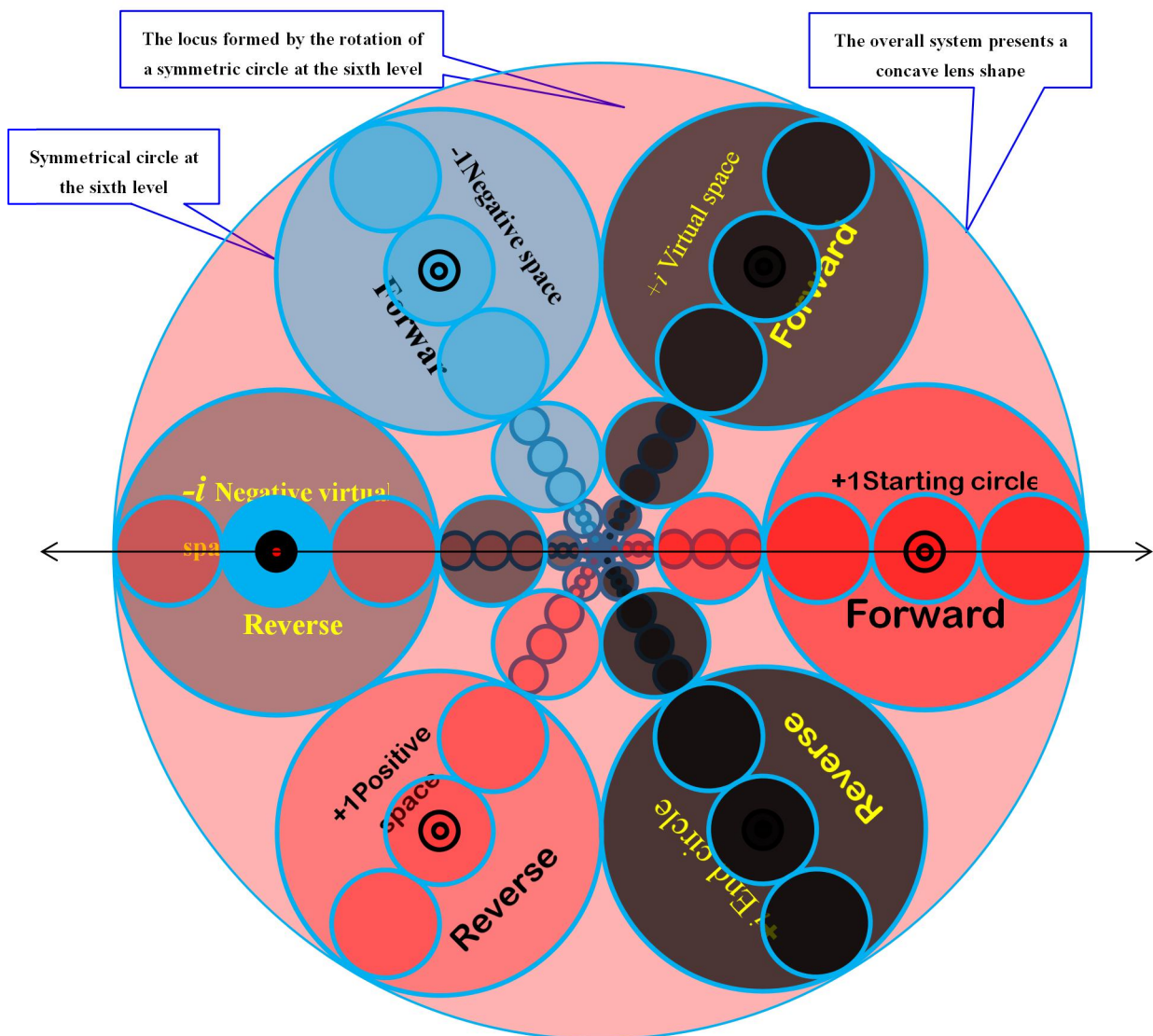


Figure 2

Figure 2| is the spatial structure diagram of figure 1 terminating at six levels. A symmetric circle also has its beginning and

ending, and its properties $F_s = i^{n-1}$, let the starting point of the symmetric circle be the starting circle and their properties change' as shown in Figure 3.

the 'total observer' of the 3d space thinks that the 'starting circle' is a plane circle in the 2d, a sphere in the 3d, and a 'starting sphere' in the 3d. each symmetric circle is also a sphere in the 3d, called a 'symmetric sphere'. Start outward 3rd times expansion, starting from one level to six levels, the attributes of each level are changing, and the hierarchy changes see the following' Figure 3'. The whole system presents concave lens shape in 3D space.

The observer inside the 'initial circle' or 'symmetrical circle' can not observe the full picture observed by the 'total observer', whose observation is that the outer part of themselves is space, in which objects (the inner center circle of the symmetric circle) rotate around the 'initial circle' such as electrons in atoms, planets in planetary systems. (For reasons referred to later)

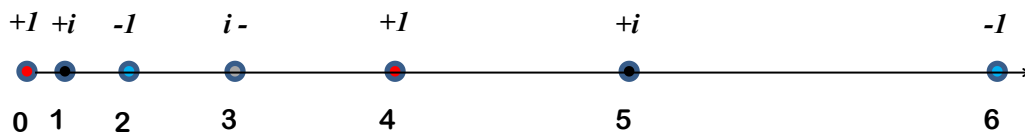


Figure 3

Fig .3| is a schematic diagram of the linear distribution of the six-level 'space field'. From 'start circle', the 'positive and negative' values of virtual number attributes and attributes change alternately every other level.

3.0. The dimensional inclusion of six-level field space ^[1]

3.1. One-dimensional straight line 'field space' in 3rd times the six-level three-dimensional space

Figure 4 is a cross-section perpendicular to the arrow line of Figure 3 ^[多维几何].

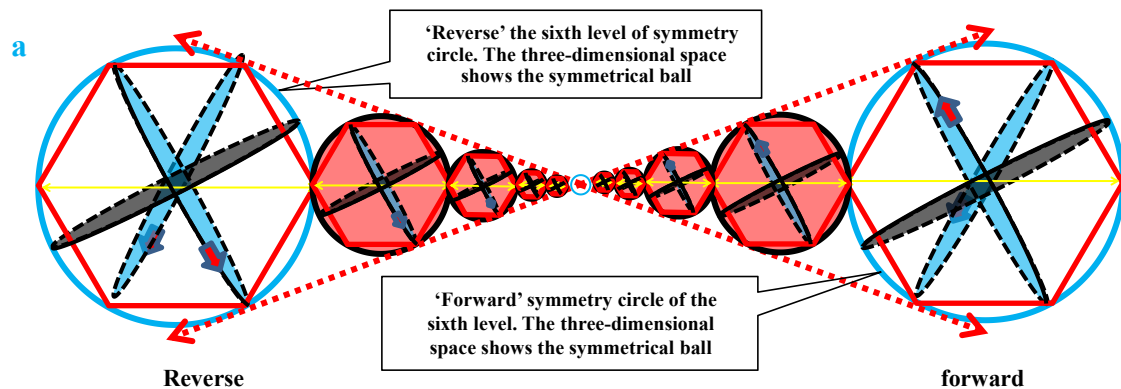


Fig .4 a| is a section of the arrow direction of Fig 3, is a Dumbbell shape without handle, and the yellow arrow in the middle is the linear space contained inside each 'starting ball'.

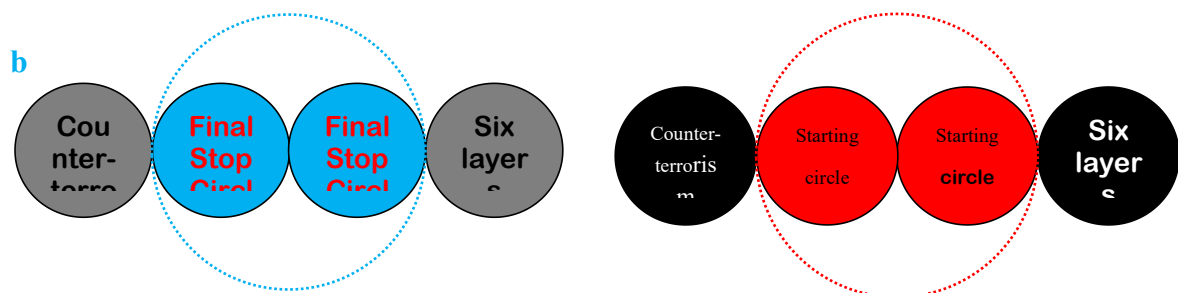


Fig .4| b' is a magnification of the 'start ball' or the terminated ball.

Figure |a is the expansion line 'space field'. if it is a 'starting circle' with overlapping positions, there is only one

'starting circle', left and right two terminating circles. If there is no overlap, there are two tangent 'start circle' and two tangent terminating circles, as shown in Figure b.. A b' is a magnification of a starting or terminating ball. from the center outward to form the expansion, from the edge to the inner reverse regression to form the contraction.

3.2. The two-dimensional plane 'space field' in the three-dimensional $3n-1$ times straight line 'Dumbbell without handle' shape^[1-3 multidimensional ,2D ,1D]

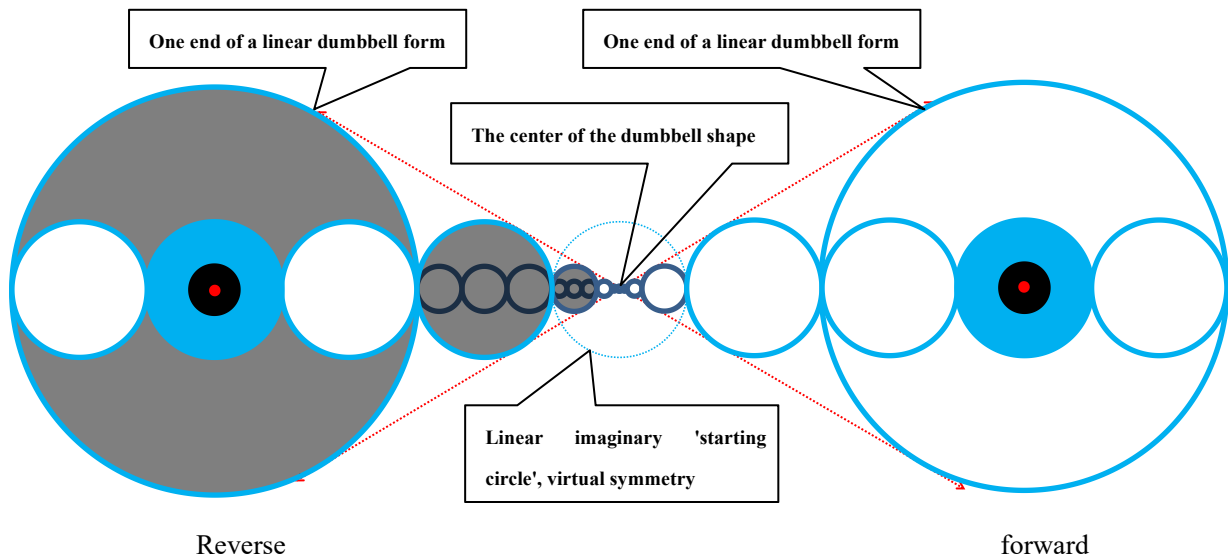


Figure 5

Figure 5| is the symmetry expanded by 3^n times, which is the symmetry of "inequality", but the inequality contains "equality". The inner symmetry circle and the center circle of each symmetry circle are equal and symmetric, and the inner symmetry of each symmetry circle Circles and their next-level symmetry circles are also equal and symmetrical. The inverse focus of the 'starting circle' on the x-axis of their next-level symmetry circle is the radius, forming a virtual 'virtual starting circle', At this time, they also form a 'virtual symmetry' with the 'virtual starting circle'.

The deeper the level of the observer, the more such equal symmetry, and the more levels. Until the boundary of the six levels.

From the point of view of the 'total observer', the whole system can be perceived and the structure inside the system can be observed, and the whole system presents a 'Dumbbell shape without handle'.

3.3. 3^{n-1} times the three-dimensional dumbbell-shaped body, the inner one-dimensional starting circle level 'equal symmetric' straight line 'space field' ^[1-2]

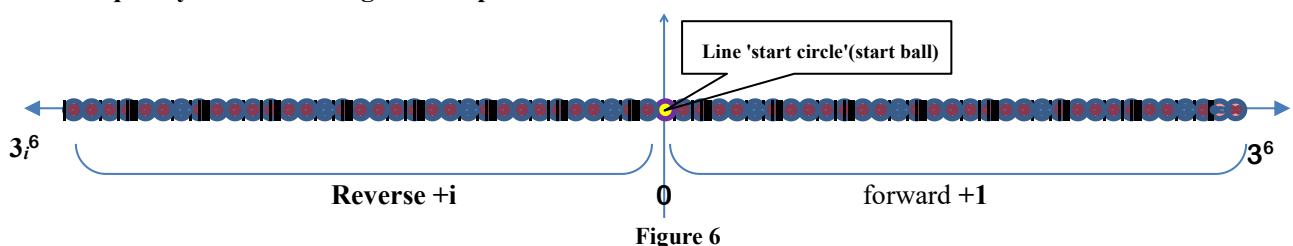


Figure 6

Fig .6| is a linear symmetric system with the diameter of 'start circle', size to 3^6 until r , (r is the 'starting circle' radius). The level and dimension of the starting circle determine the length and scope of the linear symmetry^[Hierarchy].

The starting circle radiates an equal 'symmetrical circle' to both sides of the arrow at the same time until 3^6r terminated. At the same time, the symmetric circle with 'reverse regression' returns, and the final radiation

and regression reach dynamic equilibrium.

3.4. Different observers have different observation results of the "same kind" one-dimensional linear space.

3.4.1. Observers on the absolute frame of reference in Figure 7 observe the fluctuation and stability of one-dimensional straight lines.

The 'starting circle' of a one-dimensional straight line in figure 7 radiates a symmetric circle outward, at which point a symmetric circle is missing inside the 'starting circle', and then the 'starting circle' receives another regressive symmetric circle to restore the initial state. The space in which the 'start circle' is located produces a state of vibration in which it absorbs, emits, and absorbs. Symmetrical circles at all positions in the peripheral straight line of the 'start circle' do this vibration in turn, and our external observer will see that there is a flow of objects continuously ejected from the 'start circle' point and finally disappeared after the end point. For one-dimensional straight lines, our external observers can only see this continuously transmitted state of motion, or regression state of motion.

The absolute observer and absolute space are the background space that does not change position and any other factor relative to the one-dimensional straight line in Figure 7 (relative to the traditional absolute space) ^[11])

3.4.2. Observation by the General Observer:

When the observation and detection tool used by the observer is denoted as M, the life of M is an object that is stable within nt with time t as the unit, and the life is denoted as S_m . t is the time required for the 'starting circle' to radiate a 'single' 'symmetry circle', n is the number of radiations (radiation frequency), according to the limit definition of 3^6 , $0 \leq n \leq 729$

$$S_m = nt$$

Suppose: the attribute of the tool 'M' used by the observer is a symmetrical circle with the same attribute radiated by the 'starting circle'. Suppose the attribute of the symmetric circle is +1, and the attribute remains unchanged during this process. When 'M' vertically traverses the one-dimensional line in Figure 7.

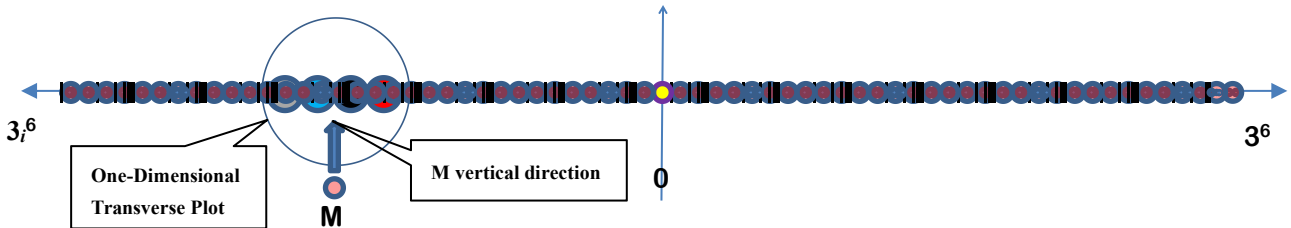


Figure 7 (r_x is the radius of M and r is the radius of the 'starting circle').

Then there will be the following:

1)、observer at the same level as the beginning circle outside:

When the M radius r_x in Figure 7 There were two M cases at $r_x = r$:

- ①. It passes through the position of the "virtual symmetry circle" of the one-dimensional straight line, because it is the "imaginary number domain" without blocking.
- ②. As long as it does not pass through, it will collide with the real symmetric circle. The result of this collision is to be bounced back or pass through the position of the 'virtual symmetric circle' beside it, but after passing through, M will not be the original direction.

Therefore, under the condition of '②', the probability of M passing through a one-dimensional straight line without obstruction is the smallest.

At this point the observer will think that the one-dimensional line is an entity. But entities don't have gaps.

2)、 the observer at different levels from the beginning circle outside:

When the M radius $r_x > r$, M can't cross a one - dimensional line at any point or angle,

At this point, the observer believes that the one-dimensional line is continuous without gaps.

When the M radius r_x when $< r$, M whatever position or angle, The smaller the r_x , the smaller the probability of crossing the 'blocked'.

At this point, the observer believes that there is a gap in this one-dimensional line, when r_x small enough, the larger the relative gap of a one-dimensional straight line.

In the view of the 'total observer', observe one-dimensional straight lines: Observers at different levels and observation levels are different, and the observation results are different; or the same observer, because of the different observation tools used, the observation results are also different.

3)、 the internal layers of the 'start circle':

On the surface of the 'start circle',

In Figure 7, the 'starting circle' moves from the 'starting position' to the 'forward or inverse' adjacent symmetric circle position, and the observer can have several understandings of this displacement motion:

①、 The whole 'start circle' has no change, moving from the space of the original 'start circle' to the space of the adjacent symmetrical circle, occupying the space position of the original symmetrical circle. This is our current macro-understanding, and we also understand microscopic motion in this way, which gives rise to strange phenomena in quantum mechanics.^[1]

②、 The 'start circle' radiates symmetric circles in an adjacent direction, but due to some factors, the symmetric circle of the regression received by the 'start circle' decreases, while the adjacent 'symmetric circle' receives more and more symmetric circles from the 'start circle' due to the same factors. At the same time, the original 'start circle' because of the emission of more received less, the last original 'start circle' position of the number of symmetrical circles, reduced to the original adjacent number of symmetrical circles, then the original 'start circle' position of the 'start circle', qualitative change into a new 'symmetric circle'.

Throughout the process, the observer on the 'starting circle' changes with the 'starting circle', unable to perceive whether his 'starting circle' moves in position or disappears into a new 'starting circle', and he feels that he has moved in position relative to an absolute frame of reference.

At this point, the perception of the external observer is that the original 'start circle' disappears, and a new 'start circle' appears at the adjacent 'symmetrical circle' position, which is not different from the original 'mass', and the original 'start circle' disappears into a new symmetric circle. This situation is repeated, whether internal or external observers, the final observation is that the 'starting circle' is moving; because the length of a one-dimensional straight line is limited, the observer will observe the periodic reciprocating motion of the 'starting circle', which is one of the principles of inertia generation.

4.0. 2ⁿ Space and field of double expansion^[2,4]

2ⁿ The space and field of double expansion are divided into two types : 'start circle 'space field' and 'start circle' space field'.

4.1. Expansion without independent 'start circle'

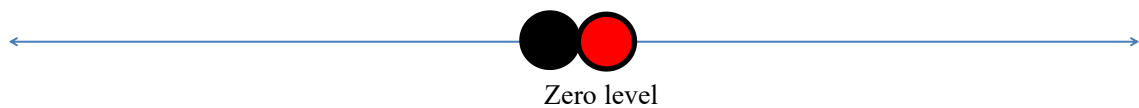


Fig 8| a, two tangent circles, forming a one-dimensional symmetric system, the symmetry point is the tangent point of two circles.



Fig 8| b ,two tangent circles, on the other side of each, are equally symmetrical, forming a respective left and right symmetry system.

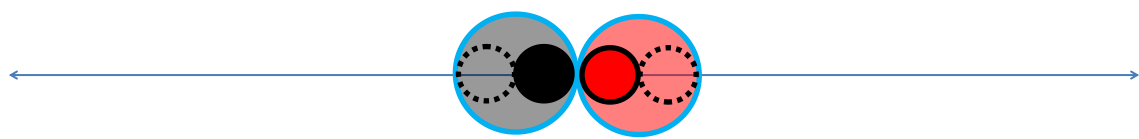


Fig 8| c, two tangent circles, rotating at the center of the symmetry points of their respective new symmetric systems, the left constitutes a higher level circle, represented by gray; the right side simultaneously rotates to form a higher level circle, represented by red. These two newly formed circles form a higher symmetry system through the tangent point.

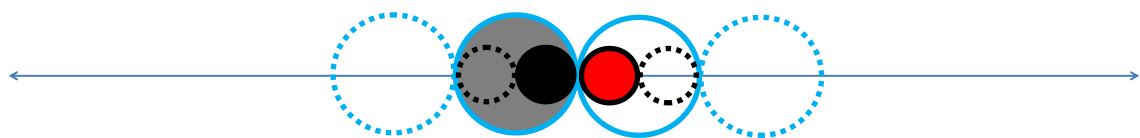


Fig 8 | d, two layers of tangent circles, on the other side of each, equal symmetry, forming a respective left and right symmetry system.

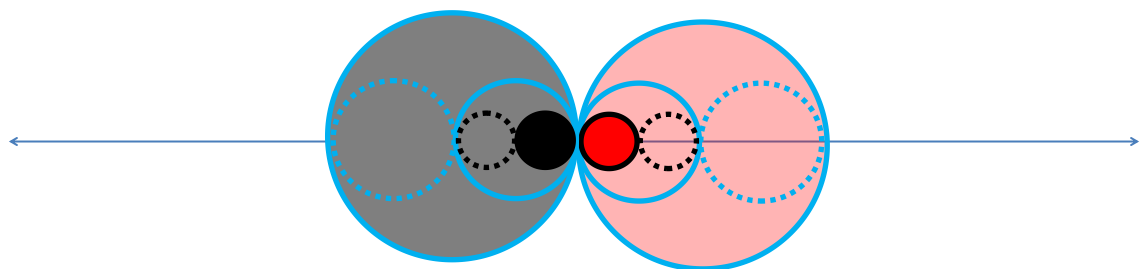


Fig 8 | e , two tangent circles at one level, rotating at the center of the symmetry points of their respective new symmetric systems, the left constitutes a higher level circle, represented by gray; the right side simultaneously rotates to form a higher level circle, represented by pink. These two newly formed circles form a higher symmetry system through the tangent point.

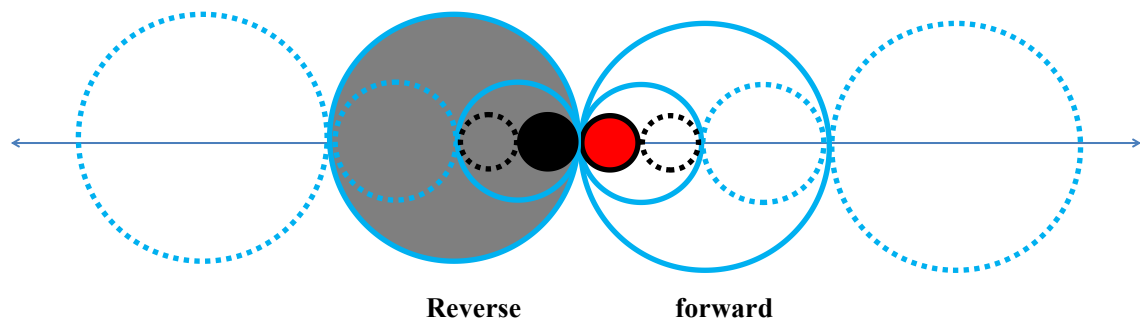


Fig 8 | f , two two-level tangent circles, on the other side of each, equal symmetry, forming a respective left and right symmetry system.

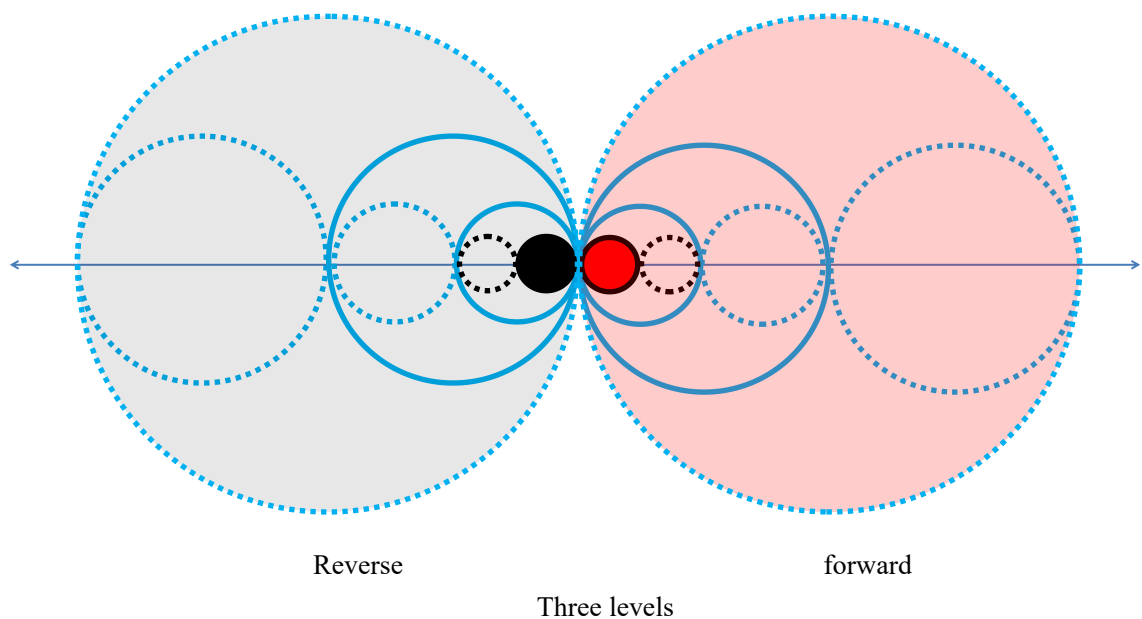


Fig 8 | g , two two two-level tangent circles, rotating at the center of the symmetry points of their respective new symmetric systems, the left constitutes a higher level circle, represented by gray; the right side simultaneously rotates to form a higher level circle, represented by pink. These two newly formed circles form a higher symmetry system through the tangent point.

Similarly, the levels evolved in the same way until $n=8$ terminated, $n=9$ due to $2 \times 3^{6-1}$ The ninth level is called virtual symmetry, the relative real number is symmetric, and the 'virtual symmetry' is space.

4.2. Let a system be a real number in a direction, then the observer of the real number system can not observe a symmetric system in reverse, as shown in Figure 9.

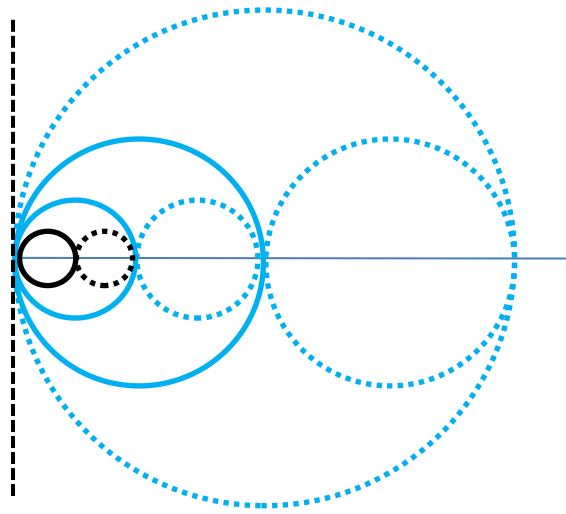


Figure 9| is the structure of an observation by a real observer. The virtual symmetry system on the left side is not observed (the source of the breakage). The observer of the real system thinks that the observer's system has no symmetry point of 'start circle', and the center point of each level changes 2ⁿ Symmetrical system. is a broken symmetric system (with symmetry inside and no mirror symmetry outside).

The total observer will observe six virtual and real systems at the same time, and think that the virtual and real systems are mirror entangled relations, exist at the same time, change at the same time, and die at the same time. Their 'starting circle' is also the 'zero' hierarchical circle in their own mirror; the reason why observers at the internal level observe breaking (asymmetric) is that the level of the observer, the method of use, and the limitations of the use of the tool cause the internal observer to be unable to observe the mirror' imaginary symmetry'.

5.0. 2ⁿ A straight line with 'start circle' symmetry^[Plane, multidimensional]

2ⁿ A 'start circle' or a six-level circle, equably symmetrical one-dimensional linear space.

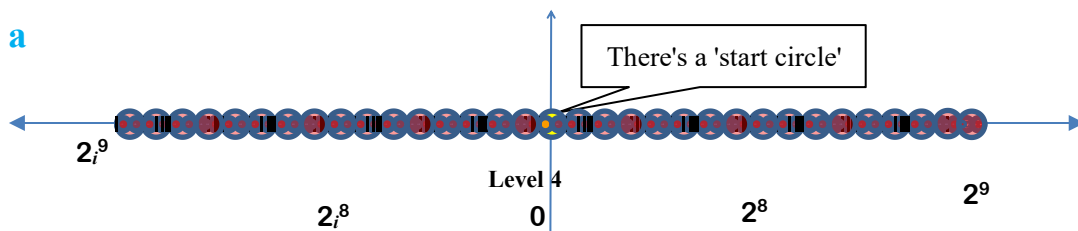


Fig 10| a,' The difference between the starting circle system and the non-start circle system is that the starting circle system with the starting circle system is not the relative interior of the forward and inverse system, and the independent symmetric system with the starting circle occupies the independent space position, and its left and right sides are the 'forward and inverse 'symmetry space. Since the 'start circle' expansion is 2ⁿ. So the small change of the starting circle and the vibration of the radius will cause the big change of the system.

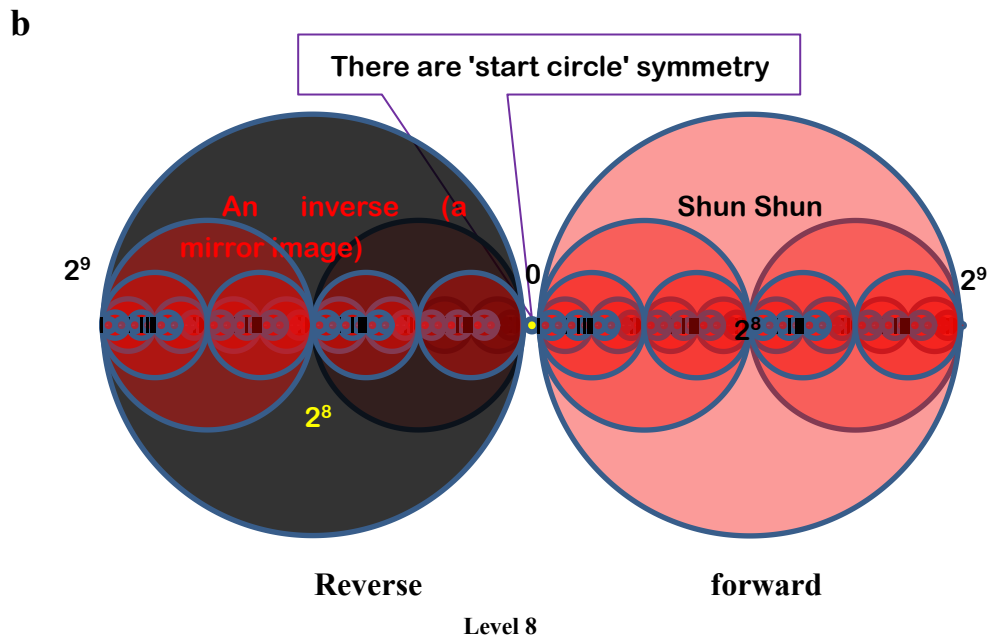


Figure 10| b, the difference between the 'starting circle' system and the system without the 'starting circle': that is, the 'starting circle' with the 'starting circle' system is not relatively inside the 'forward and reverse' system; In an independent symmetric system, the 'starting circle' occupies an independent space position, and its left and right sides are the 'forward and reverse' symmetrical spaces. Since the expansion of the "starting circle" is $2n$ times the relationship, a small change in the "starting circle" and the vibration of the radius will cause a large change in the "forward and reverse" system.

5.1. Types of 'initial circles'^[Orbit]

5.1.1. Inside the 'starting circle' is a straight line system composed of 'two' circles (a single non-overlapping system).^[3]

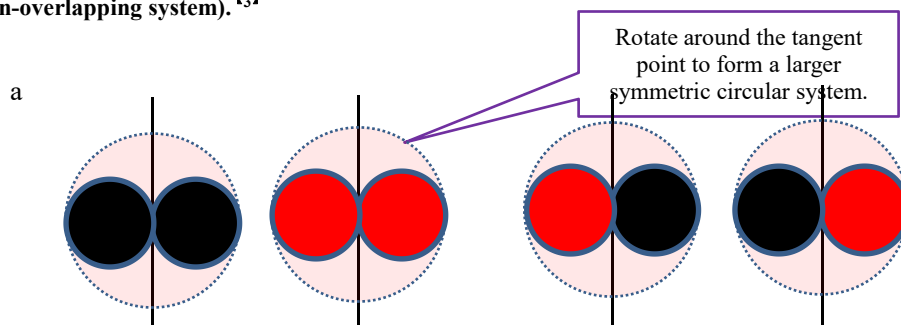


Figure 11|a,' Symmetrical system structure inside the starting circle and outside the starting circle is the same, is 2^n Relationship.

5.1.2. A system for dividing the structure of a circle within a compound 'start circle'.

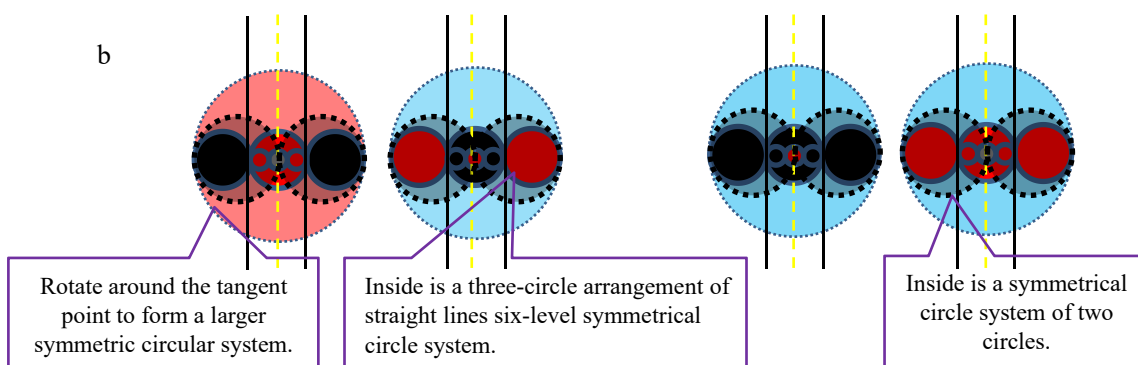


Fig 11| b,' There are two symmetry relations inside the starting circle, 3^n and 2^n two kinds of contraction symmetry systems, two systems are not exclusive, is the fusion relation, their compound, the superposition constitutes the mutual inclusion, and each other foundation space, they form: the fusion, the mutual transformation compound system. How this compound relationship changes will result in a change in the symmetry system outside the 'start circle'.

5.1.3. Inside the 'starting circle' is a non-overlapping six-symmetric system divided by 'three' circles.

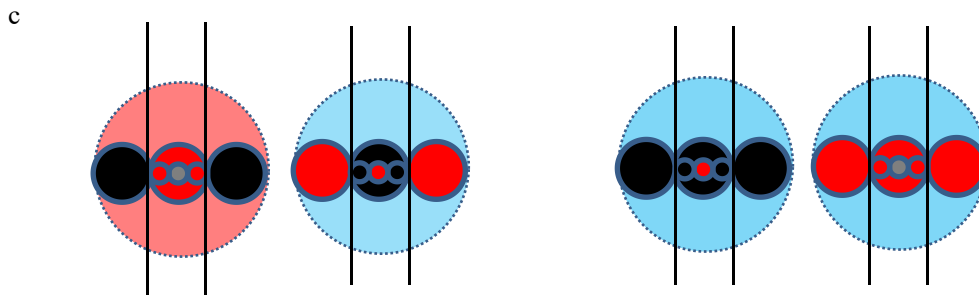


Figure 11 | c. The inside of the 'starting circle' is a 3^n -fold contraction system, and its internal symmetry point is at the tangent point of the 'central circle' and the 'symmetric circles' on both sides, and the 'symmetry circle' changes due to the level change. Observed from an external observer, the axis of symmetry is vibrating [3]. This vibration will cause changes in the axis of external symmetry, such as changes in the orbit of a planetary system and changes in the energy levels inside atoms.

In Figure 11, the conversion rules of 2^n and 3^n :

- Ⓐ "Starting circle" has a 3^n change inside and a 2^n change outside.
- Ⓑ The inside of the 'starting circle' is a 2^n change, and the outside is a 3^n change.
- Ⓒ "Starting circle" has a 3^n change inside and a 3^n change outside.
- Ⓓ The inside of the 'starting circle' is a 2^n change, and the outside is a 2^n change.
- Ⓔ The mirror image of entanglement.
- Ⓕ Chaos is unclear.
- Ⓖ Interrelated, mutual regular transformation.

6.0. without 'start circle' 2ⁿ Double expansion 'space field'

Equal expansion without 'start circle' mirror line

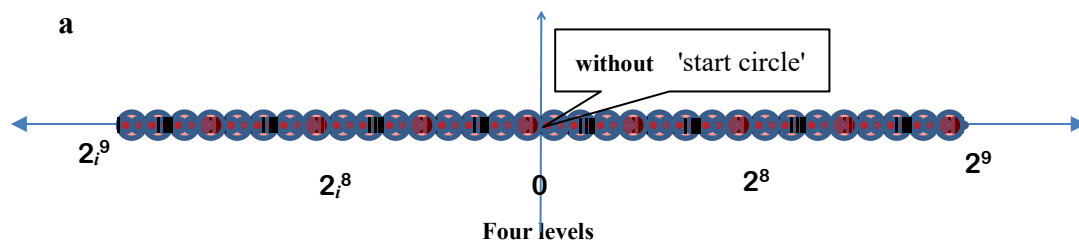


Fig .12|a, The level goes up, the smaller the number of symmetric 'symmetric circles'.

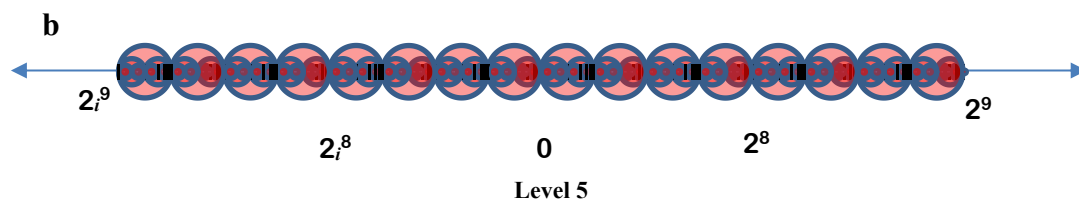
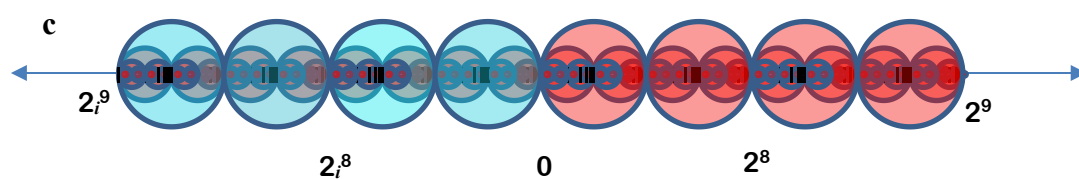


Figure 12|b, The number of symmetry circles is less than the number of four levels, but the more 'symmetric circles' are contained inside.



Level 6

Fig .12|c, there are fewer symmetrical circles at six levels relative to five levels. The more the number of symmetrical circles inside the system is, the less the mirror system is. In the view of the ' total observer', the symmetric circle at all levels is the entanglement relationship, which is less and less entangled as the level expands closer to the reference frame of the ' total observer', (six-level decoherence principle).

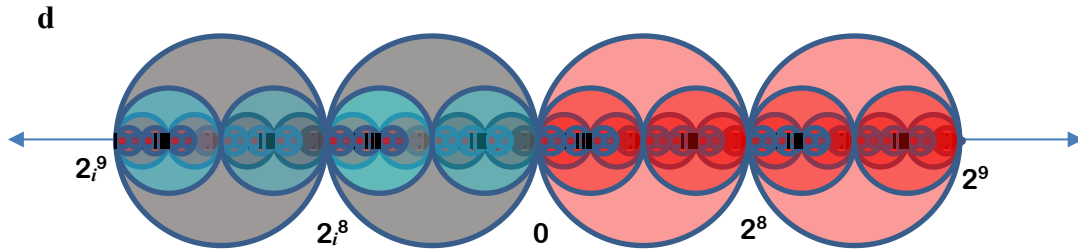


Fig .12|d, the level increases, if the observer follows the change the same way, at this time the seven-level symmetric circle becomes four to the outside observer, and the observer on the seven-level system can only observe two, because the virtual observer can not observe the real number system, and the observer of the real number system can not observe the virtual number system.

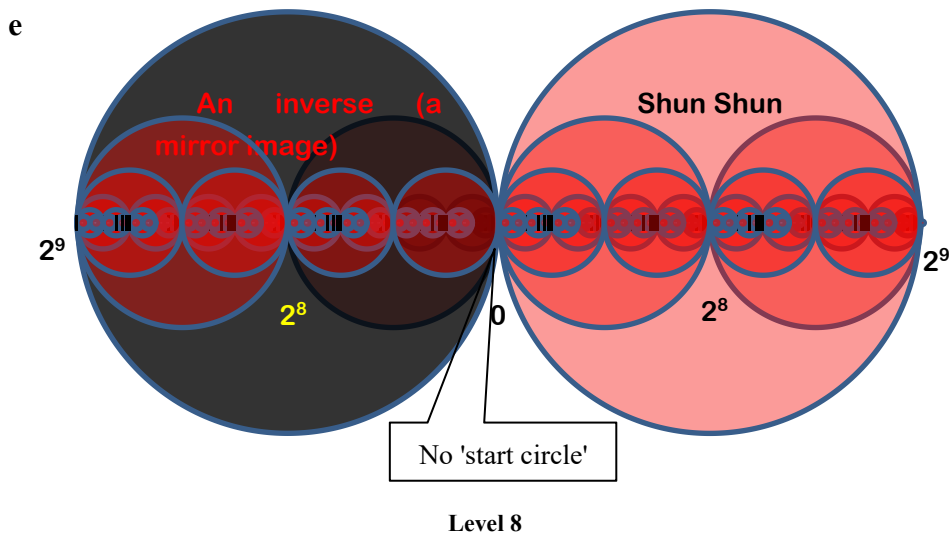
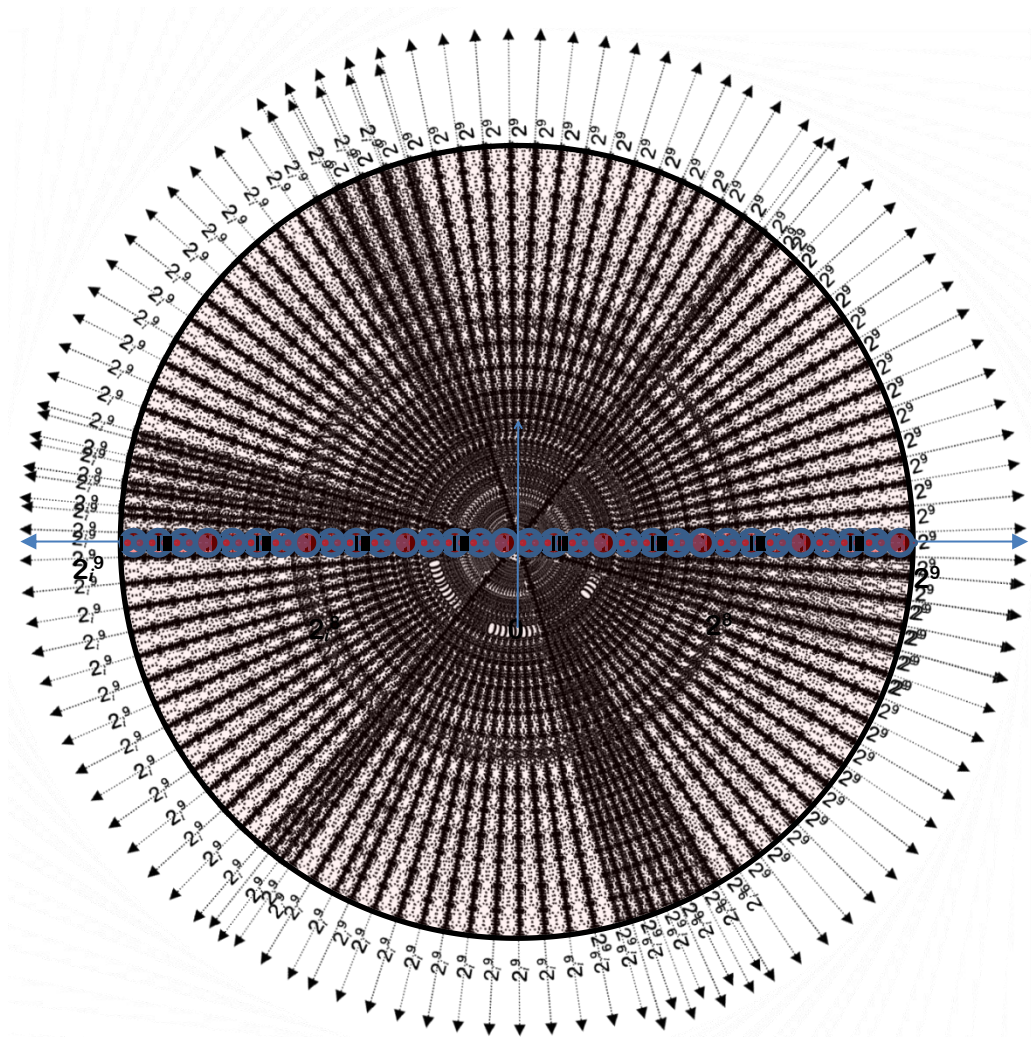


Fig .12|e, As the system expands, the eighth-level observer inside the system, he can only perceive the existence of one system (entity or imaginary number system), and the mirror symmetry of ' forward and inverse' disappears, because at this time the observer on ' forward or inverse', is the mirror symmetry system that can not perceive the other side, at this time, the observation results change from the entanglement of the multi-symmetric system to the only deterministic system. Instead, it changes from a uniquely determined system to a entangled multi-system state (similar to microscopic quantum entanglement).

Nine levels and one and two three levels are not described.

7.0 Distribution of one-dimensional straight line 'space field' in two-dimensional circular plane

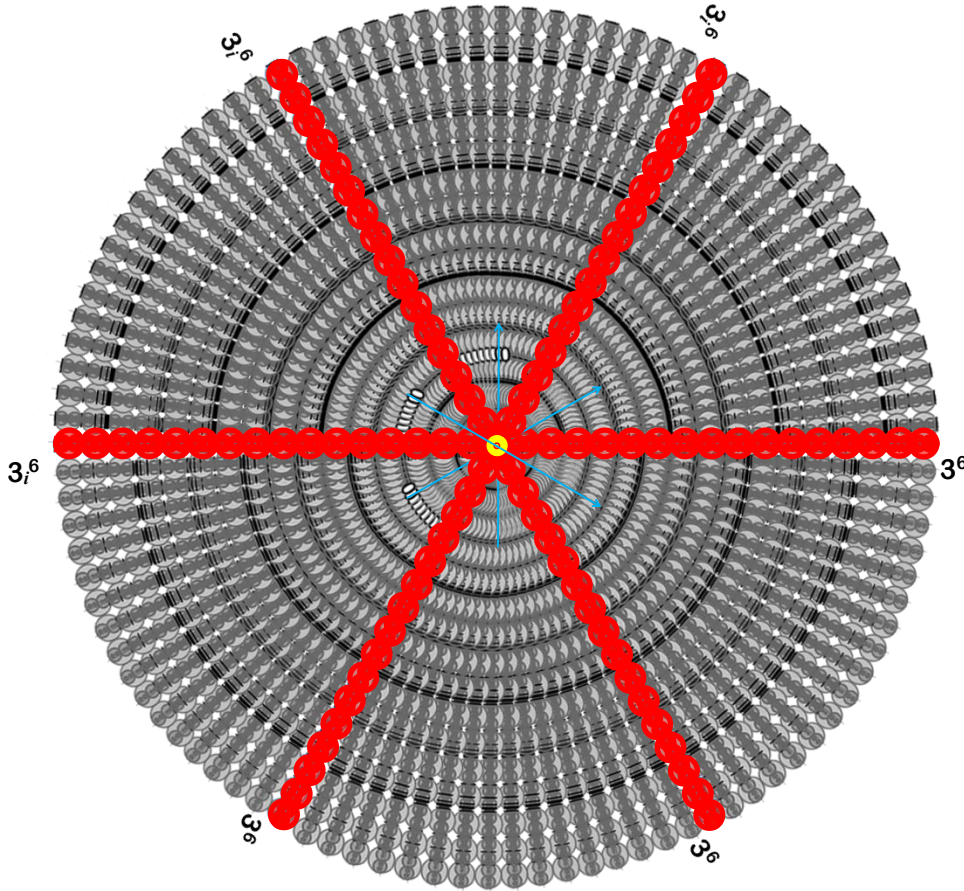
7.1. 2ⁿDistribution of linear overlapping spaces in two-dimensional circular planes



Black is six one-dimensional rectilinear radiating oscillating circles with an included angle of 60° on a plane, with the center point in the plane rotation superposition trajectory, constitute a plane circular symmetry line one-dimensional 'space field'. The system as a whole shows the nature of the field space.

In figure, 2ⁿ an equal one-dimensional symmetric system of an expanded 'start circle'(including an independent 'start circle' or a mirror system's zero-symmetric circle as its own 'start circle' system), a circular surface formed by a trajectory rotating around the center point. Due to 2ⁿThe independence and exclusivity of the system can not be like 3ⁿ, it can be superimposed on three pieces of 60° the one-dimensional linear system of the angle. The whole system has only one one-dimensional straight-line system composed of symmetrical radiation of 'start circle'.

7.2. The distribution of line overlapping space of 3^n times' starting circle 'unit in' two dimensional circular surface '



The gray is the trajectory formed by the one-dimensional equal linear rotation formed by the 'starting circle'. The trajectory constitutes a 'spatial field' with a radius of $729r$, and the length of the straight line is $2 \times 3^{6-1} = 1458r$. r is the radius of the 'starting circle'.

The space of the "starting circle" radiates six symmetrical circles at the same time. Each diameter of the "starting circle" has $729 \times 2 = 1458$ symmetrical circles. The three one-dimensional straight line systems have a total of $1458 \times 3 = 4374$ symmetrical circles. Then the density of the "starting circle" is Q , then

$$Q = 4374$$

At the same time, there are the same number of regression symmetric circles. Observers from a one-dimensional perspective cannot observe the regression symmetric circle. If they can perceive the regression symmetric circle \square , then the observer will rise to a level, or think that the regression symmetric circle is The imaginary circle and imaginary symmetry.

The density of the 'starting circle' measured by an observer rising one level $Q = 4374$ (radial symmetry circle) + 4374 regression symmetry circle = 8748

This level cannot directly perceive the "returning symmetric circle" but it can be derived indirectly

$$Q = 4374 + 4374i$$

The meaning of this equation is: the 'starting circle' radiates 4374 symmetrical circles outwards, forming a three symmetrical circle straight line with an included angle of 60° , and at the same time, 4374 'starting circles' with opposite attributes are generated at the position of the 'starting circle' The

number of 'circle', the space of the 'starting circle' position and the 'symmetry circle' of the radiated space are equal in number, and the properties are opposite, neutralization attribute is 0.

8.0 Discussion:

8.1. The classical and simple view of space is that the place where objects exist and move is three-dimensional space.

The six-level view of space, different from this simple concept of space, holds that there is no qualitative difference between space and objects, but only the difference of attributes. A system, whose central expression is the property of objects (or called matter); the property of a symmetric circle relative to the center of the system is space, and the property of a symmetric circle is the traditional expression of space. The space and objects in this paper are transformed into each other, which constitutes the displacement or rest of the object in space. Space has different kinds and different levels, and this 'kind' and 'level' determine the representation of the attributes of the observed object or space.

8.2. The traditional space is divided into dimensions, which begin with infinity.

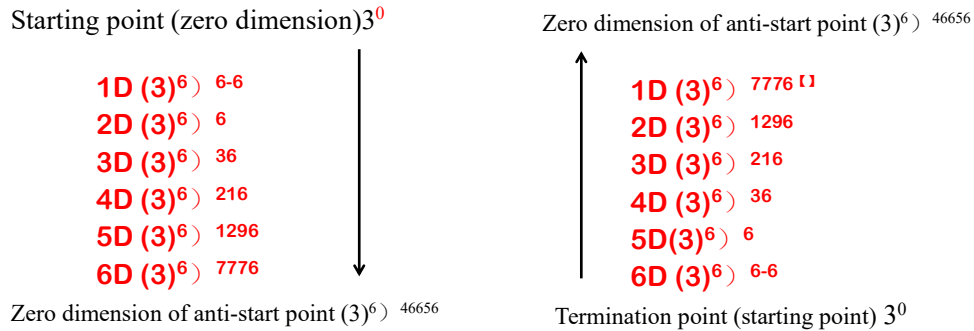
The traditional idea of multidimensional space is that the dimension is infinite, but every object in our nature is finite, and the space seems infinite, but we can not prove that the space is finite or infinite.

Table 1 is a comparison of the dimensional division of the six-level space and the traditional dimension division

Traditional Spatial Dimensions.	Six-level Geometric Spatial Dimensions.
Zero dimension: one point (no size, not realistic).	Zero dimension: sphere, is the smallest unit of space (varying with the level of the observer).
1D: a straight line (no starting and ending, Have origin origin).	1D: A line segment (with starting and ending points, with symmetry points).
2D: One face (no shape, thickness and area limits).	2D: A circle with thickness (the radius is an integer multiple of the radius of the ball of zero dimension).
3D: The space we live in (no size limit).	3D: A sphere in a finite range (radius is an integer multiple of the 'zero dimension' radius).
Four-dimensional: the motion of three-dimensional space on the time axis (can not be described).	Four-dimensional: Three-dimensional 'global' formed by the periodic motion of Four-dimensional spheres ¹¹ (limited scope).
Five-dimensions: Four-dimensional straight line moving perpendicular to a momentary axis (contradictory chaos)	Five-dimensional: A five-dimensional 'ball ring' formed by four-dimensional universal periodic motion ¹¹ (limited scope).
Six-dimensional: Five-dimensional straight line moving perpendicular to a momentary axis (contradictory chaos).	Six-dimensional: Five-dimensional 'Ball globe' cycle motion forms six-dimensional 'ball-the-world' ¹¹ (limited scope).
Seven-dimensional: Six-dimensional straight line perpendicular to a momentary axis (contradictory chaos).	Terminate dimension: sphere ('anti 'start' zero dimension 'space, regression to' zero dimension', forming dimension cycle).
-----: open non-circular can be infinitely divided, a direction. M theory thinks eleven dimensions.	Here the dimension, there are two directions divided.

8.3. Traditional geometric spaces are all infinite spatial extensions. Six-level space is a finite measure. The change in the finite cycle satisfies the hierarchical change:

The hierarchy of this cycle^[Hierarchy]:



8.4. Relation of absolute space to relative space

There is absolute space in Newtonian mechanics.

Deny absolute space in relativity and think that space is relative (but it is also applied in practice, except that absolute space is invisible in relativity and is the base space for the relative space survival of relativity').

Six-level geometry holds that absolute space and relative space are interdependent, Newton's absolute space is existence, is the world indispensable space factor, but this absolute space is not Newton's absolute space as permanent, is determined by the observer according to their own environment, levels and the observer used observation tools and observation methods, it is only satisfied with the specific conditions of the observer, within a specific period of time. Without this absolute space, the relative space does not exist. The relative space is relative to the absolute space determined by the observer or observer's own frame of reference. The absolute space is the basic space and the recessive space of the relative space.

Absolute space and relative space are mutually inclusive and hierarchically varying.

9.0. Summary:

in the view of 'total observer': the field and space are divided by the observer according to the conditions of different frame of reference; in the view of 'total observer', the sum, superposition of various fields is our real space, and the field is only the different observation cognition result of the same position space by the local observer or different observer.

The difference between an object (substance) and space is the difference in the content of space (in some cases relative to mass) and whether it is in the center; the space in the center position, with a large spatial superposition density, is the starting point of symmetric radiation, and the others are in the position of a symmetric circle. The space content is relatively small and the attribute is different, so the same space position and object, because the observer in different levels, different conditions of the same space or object observation results are different.

The position motion of an object is not as simple as that of a traditional macroscopic object moving from one space position to another. The movement of objects is the transformation of space and objects, and the movement of objects from the cognition of the 'total observer': it is the spatial movement of the position of objects and the transformation of spatial density, both of which have the right side and the insufficient side, the movement of objects position is macro cognition, and the transformation of spatial density is micro cognition.

References

- [1] Hu Jun. " introduction to the six-layer symmetric complex static multidimensional "geometric model .
<https://doi.org/10.6084/m9.figshare.12251297>.
- [2]. Hu Jun. Introduction to plane six layers symmetrical complex number geometric space.
<https://doi.org/10.6084/m9.figshare.11341385>.
- [3] Hu Jun . Mirror world and planetary orbit distribution in the solar system ,17-24 pages
DOI: 10.14293/S2199-1006.1.SOR-. PPFDKSC.v1
- [4] Hu Jun. planar six-level symmetric complex geometry. An Introduction to the Principle of Physical Properties of Geometric Space in Plane's Six-level Symmetry Complex.
<https://doi.org/10.6084/m9.figshare.11926053>.
- [5] Hu Jun. Periodic Table of the Solar system planetary orbit
<https://doi.org/10.6084/m9.figshare.11472519>